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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/483,321	01/14/2000	Gary L. Swoboda	TI-28937	8221

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EXAMINER

MAKHDOOM, SAMARINA

ART UNIT	PAPER NUMBER
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2123

DATE MAILED: 03/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/483,321

Applicant(s)

SWOBODA, GARY L.

Examiner

Samarina Makhdoom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 16 January 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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Response to Amendment

1. Claims 1 and 4 are amended.

Specification

2. Amendment to the specification is acknowledged and accepted. Objection to header in the specification is now withdrawn.

Amended abstract is received and acknowledged.

Drawings

3. The proposed drawing corrections were received on 1/16/03. These drawings are approved.

Response to Arguments

4. Applicant's arguments filed 1/16/03 have been fully considered but they are not persuasive.

In the remarks, applicant argues in substance that Bhattacharya does not teach (1) each of the plurality of modules including at least one of the plurality of registers; (2) nonselected modules being nonresponsive to data on said serial connection; (3) supplying to the test data input port for communication to the boundary-scan architecture a serial signal having a first logic state for a number of cycles greater in number than a number of bits of the serial connection of the plurality of registers; (4) following supply of serial signal, supplying to the test data input port for communication to the boundary-scan architecture a start bit having a second logic state opposite to said first logic state; and (5) the limitation of claim 4, Bhattacharya fails to teach

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three different signals on the serial connection, particularly the opposite start bit on the serial connection, particularly an opposite start bit on the serial connection.

5. As to arguments (1) – (5), (1) the examiner respectfully disagrees, see Figure 7 for two modules or cores 725 and 735. Each module has at least one register CBSR. Also see text in Col. 7, line 57 to Col. 8, line 39 for plural non-Taped and TAPed cores in an integrated circuit. Thus, the plurality of modules including at least one of the plurality of registers is taught by Bhattacharya. (2) the examiner respectfully disagrees; see Col. 7, line 57 to Col. 8, line 39 for plural non-Taped cores or non-selected modules (Figure 7, 710) that are serviced by the test access port 717. But only the embedded cores (Figure 7, 725 and 735) are monitored using a snooping mechanism by the test access port. Therefore the non-selected modules do not respond to data on the serial connection. (3) the examiner disagrees here also, see Col. 11, lines 31 et Seq. for a test data input port for the boundary scan architecture with a logic state for a number of cycles. Although the claimed signal or data supplied to the port is not the same as the data in the Bhattacharya patent, the type of signal supplied is not claimed. Also, with an input port or pin, any type of data or signals can be put on the input to the circuit. (4) See Col. 14, line 1 et Seq. for the start bit that takes the port into a reset (or first logic state) state that is opposite of the run test or idle state (second logic state). (5) see column 3, lines 18 et Seq. for serial connection and in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., opposite start bit on the serial connection) are not recited in the rejected claim(s). Although the claims are

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interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. **Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Bhattacharya, U.S. Patent No. 6,378,090.**

As per Claim 1, Bhattacharya discloses a method for emulation communications via a test access port and boundary-scan architecture providing serial access to a serial connection of a plurality of registers disposed in a plurality of modules, comprising the steps of:

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selecting for communication one of said plurality of modules, nonselected module being nonresponsive to data on said serial connection (See Figure 3, for a plurality of cores or modules with test access ports in a single integrated circuit in which the plural test access ports are serially connected. See Col. 4, lines 48 et Seq. for the disclosure of the non-TAPed cores 310 (or nonselected modules) are connected to the first test port are nonresponsive to data of the serial connection);

supplying to the test access port for communication to the boundary-scan architecture a serial signal having a first logic state for a number of cycles greater in number than a number of bits of the serial connection of the plurality of registers (See the Abstract for the disclosure of a test access port for communication to a boundary-scan architecture. See Figure 13, and corresponding text in Col. 11, lines 31, et Seq. for the disclosure of several logic states 1001-1 to 1001-n, therefore the boundary-scan architecture has a first logic state. See Col. 13, lines 30 et Seq. for the disclosure of the test port 717 shifts an instruction into the instruction register via appropriate cycles at the beginning of the Select-Instruction Register-Scan state to select control registers. Since the instruction is shifted then the number of cycles must be greater than the number of bits of the serial connection of the registers, therefore the reference disclose a number of cycles greater than the number of bits of the serial connection.)

following supply of said serial signal, supplying to the test access port for communication to the boundary-scan architecture a start bit having a second logic state opposite to said first logic state followed by a predetermined number of data bits (See the Abstract for the disclosure of a test access port for communication to a boundary-scan architecture. See Col. 14, lines 1 et Seq. for the disclosure a start bit which is the bit that will take the snoopy test port into a Reset State

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in the end of Step 8. The Snoopy test port is in a Reset State (or logic state one) and the test bus is in a Run Test/Idle State (logic state two opposite of logic state one). Step 8 is dependent of the data register (containing a predetermined number of data bits) state);

at said selected module detecting said start bit and storing said predetermined number of data bits (See Col. 14, lines 1 et Seq. for Update-Data Register State which stores data bits in the Data Register).

As per Claim 2, Bhattacharya discloses the step of storing said predetermined number of data bits consists of storing said predetermined number of data bits in a program visible data register (See Col. 14, lines 1 et Seq. for Update-Data Register State which stores data bits in the Data Register, this register is a program visible data register).

As per Claim 3, Bhattacharya discloses a selected module, interpreting said predetermined number of data bits as an instruction and performing a function corresponding to said instruction (See Figure 12, and text in Col. 9, lines 59 et Seq. for the disclosure of the state diagram of the snoopy test port. The test port controller transits from the Update-Instruction Register state 226 to performing the function corresponding to the instruction in the Run Test/Idle state 202).

As per Claim 4, Bhattacharya discloses a selected module, supplying a serial signal having said first logic state to following registers in the serial connection of the plurality of registers during a first time interval and supplying to following registers in the serial connection of the plurality of registers a start bit having a second logic state opposite to said first logic state followed by said predetermined number of data bits (See Figure 1. and corresponding text in Col. 3, lines 18 et Seq., for the serial connection of a plurality of registers ICBSR 705, CBSR 725,

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and CBSR 735 in a first logic state. Based on the TAP1, TAP2, and TAP3, signal inputs, the second logic state may be the opposite of the first logic state, for example with the execution of the RESET signal followed by a predetermined number of data bits in the registers).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

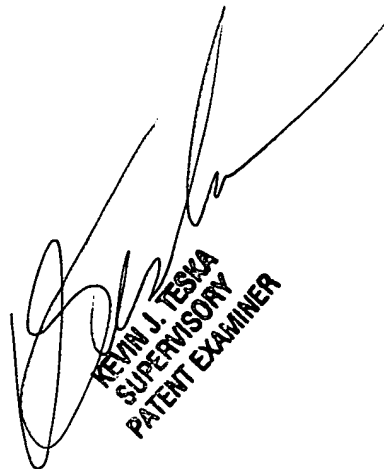
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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samarina Makhdoom whose telephone number is 703-305-7209. The examiner can normally be reached on Part Time on Friday, and Sunday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin J. Teska can be reached on 703-305-9704. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-0040 for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

SM
February 3, 2003



KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER